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FOUNDATION-STONE OF THE INSTITUTE OF PALAEOBOTANY

3 APRIL 1949

By the Hon'ble Pandit Jawaharlal Nehru
Prime Minister of India and Minister for Scientific Research

Unaltered rough notes of the speech delivered by Professor Birbal Sahni, F.R.S.

At this solemn hour, in the presence of this distinguished gathering, it is my special privilege to request the Prime Minister of India to lay the foundation-stone of the new buildings of the Institute of Palaeobotany.

This is in some ways a unique occasion. For this Institute is the first and only one of its kind in the world. And in asking you, Sir, to do us this great honour I feel I have something of a personal claim upon you.

For you and I have both worshipped at the same shrine at Cambridge. There we drank from the same fountains of knowledge and sat at the feet of the same masters who taught us Botany and Geology.

Starting as a student of Science you became successively a lawyer, a politician, (and prison-goer), a writer, a far-seeing statesman and an internationalist. Above all, you became a disciple of Mahatma Gandhi and are now essentially a man of peace in this war-torn world. But such was the initial spell of Science upon your personality that the scientific outlook still pervades your whole being, and we in India acclaim you with as much pride as our Minister for Scientific Research as our Prime Minister.

Palaeobotany is the common ground between Botany and Geology — it is in fact the botany of the rocks. As one who has had to do with the creation of this Institute and with the direction of its activities during the past few years I may be allowed briefly to explain that here we study not only fossil plants but also the rocks in which they are found. Experience has taught us that it is only thus that we can form anything like a full picture of plant life through geological time.

In the same way as a child's walk is made up of a series of falls, the edifice of Science is erected upon a series of mistakes.

The Science of Palaeobotany began somewhat like a purely academic pursuit, a study of curios. Gradually the point of view has changed as it always does with time, and it has revealed new vistas. The whole outlook has now widened beyond recognition. Today the study of fossil plants, pursued with modern techniques and with due regard to its repercussion, upon all the bordering sciences, already occupies a respectable place among the sciences and fully deserves the support that it is now receiving from all sources. It would not only allow us glimpses into the evolutionary history of plants, but helps us more and more accurately to tell the ages of strata and thereby to explore the mineral wealth of the earth, particularly coal and oil, to picture the geography of the past, and to understand the structure of the earth's crust with its recurring phases of earth movements some of them affecting entire continents.

With modern methods of study, geological formations many thousands of feet thick which geologists were accustomed to regard as barren of fossils and therefore not datable,

have been shown to be teeming with microscopic fossils which have thrown a flood of light upon their geological age, and have given us improved methods of classifying the oil-bearing strata.

The stone, which it will be my privilege now to ask you to lay, is a somewhat unusual sort of monument. It has been purposely made up in this Laboratory from an assortment of rocks and fossils from many different countries, and from many geological forms from the oldest to the youngest, covering a span of time from at least 600 million years ago to only about the beginning of the Christian era. The specimens have either been collected by ourselves or have been presented to the Institute by numerous colleagues all over the world. Some of them illustrate discoveries of palaeobotanical interest, others are of equally great geological significance or have importance in economic geology.

Some of these fossils were discovered only a few weeks ago in the Rajmahal Hills in Bihar. Slumbering for millions of years in the strata, these immortal things woke up, as it were, under the stroke of the geological hammer and again saw the light of day for the first time last January. Now they have been laid to rest again in this stone, as if in a second grave, but with their faces uncovered, undying witnesses of a strange world of the past.

Thus, within the limits of our resources and the technical exigencies, an attempt has been made in this foundation-stone to epitomize the entire field of palaeobotanical science today, not only in India but in the world. We have been happy also to commemorate here in this way gifts received during the past 30 years or more from colleagues in far-off countries.

It is our hope that in this stone a link will have been forged in the chain of international goodwill and cultural co-operation. By laying this foundation-stone you will therefore be helping us to achieve for this young Institute a hopeful future of broad and truly international outlook which is one of our main objectives.

For what is it, after all, that pious men worship in a stone which they place in a temple, but an *idea*, or *ideal*, a great truth, a hope or a wish for a higher existence, whether in this world or in the next? And that is it that this stone symbolizes? — the great fact of the antiquity of plant life on the globe, the intellect of man ever striving to bring that fact more and more clearly to light, revealing different stages not only in the evolution of the plant kingdom in a more and more orderly and understandable sequence, but also the evolution of his own poor understanding of these truths. The very construction of it, the flaws and imperfections in its entire make up, the labour that has gone into its preparation, are all but symbols of our imperfect and helpless efforts at constructing something new, something worthwhile.

Sir, may this foundation-stone, laid by your august hands, prove worthy of you and augur for the Science of Palaeobotany and this little Institute an ever-brighter and more useful future in which men of all nations will co-operate in the spirit of Science and of Service.

I must not forget to add, Sir, that the silver trowel with which you will spread the mortar is a humble present to you from the palaeobotanists of India. Incidentally, the handle of the trowel is from the twig of a tree which lived in Patagonia something like 60 million years ago. The specimen was sent to me 20 years back by my late friend and colleague Dr. Anselmo Windhausen of the University of Cordoba in Argentina.